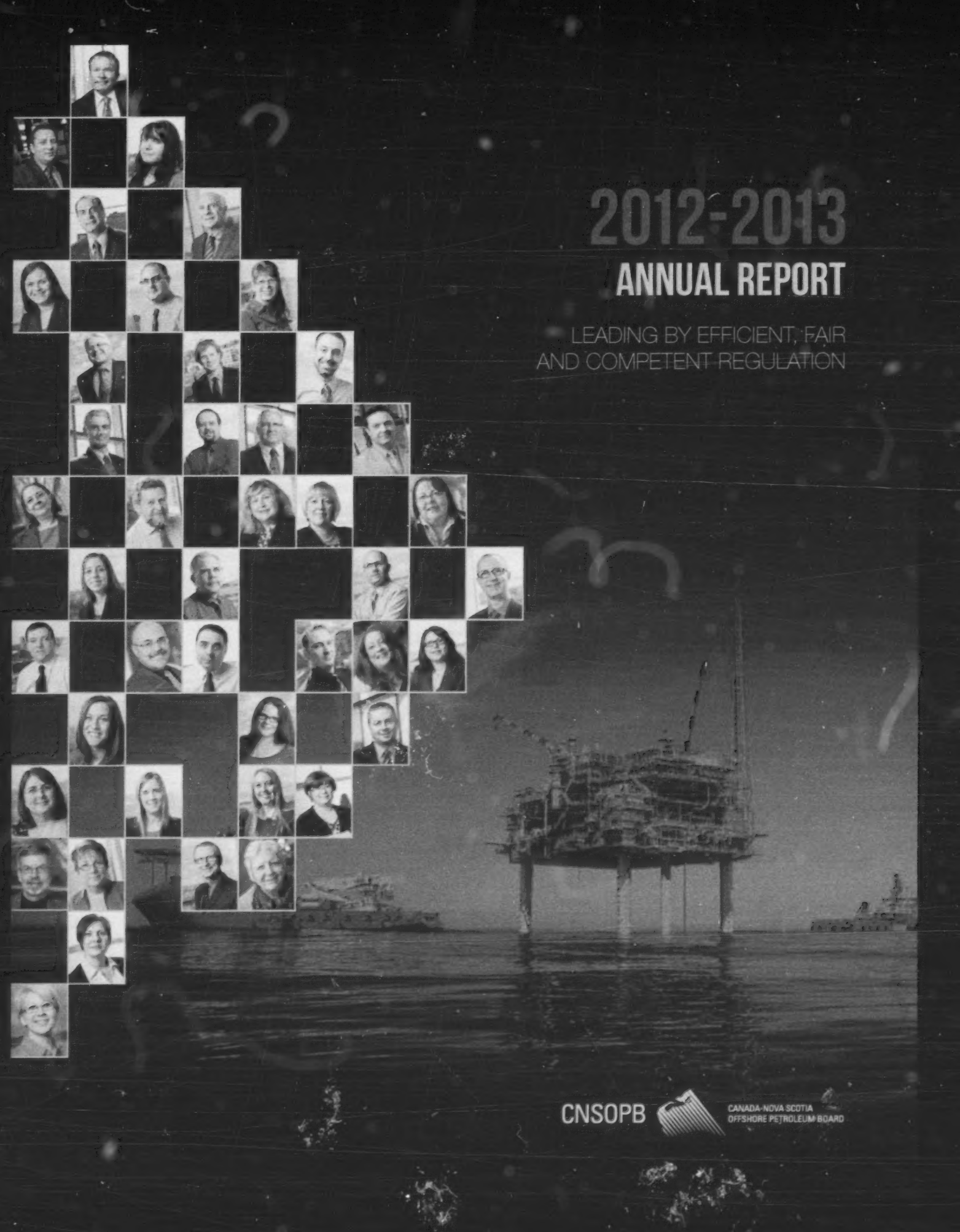

2012-2013
ANNUAL REPORT

LEADING BY EFFICIENT, FAIR AND COMPETENT REGULATION

CNSOPB

CANADA-NOVA SCOTIA OFFSHORE PETROLEUM BOARD

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REPORT FROM THE CHAIR AND CHIEF EXECUTIVE OFFICER

The past year has been an exciting one, filled with notably revived interest in our offshore and advances within our organization. We are pleased to report to you on our activities, and to provide insight into the direction we are moving in the upcoming years as we continue to set high benchmarks for other oil and gas regulators to follow.

The outlook for exploration activity offshore Nova Scotia has significantly improved. This is attributable to the success of our 2011 and 2012 Call for Bids which, combined, resulted in the issuance of twelve Exploration Licences with a total work expenditure commitment of approximately $2.1 billion. These bids represent the largest exploration commitments in the history of offshore Atlantic Canada.

In preparation for future deep water drilling on these new licences, the Board has developed detailed action plans to ensure its readiness from a regulatory oversight perspective, particularly to address the additional factors that could arise from oil exploration activities. The Board's focus is, and will continue to be, on holding operators fully accountable to carry out their work in a manner that minimizes risk to safety and the environment, and that has a clear focus on incident prevention.

Over the past year, the Board was the subject of a performance audit by the Auditor General of Canada focused on the Board's environmental protection mandate. The final report, tabled in the House of Commons in February 2013, concluded that the Board is appropriately managing the environmental aspects of its mandate in regulating offshore Nova Scotia's current natural gas projects. As with any audit, improvement opportunities were identified which we accepted and endorsed in keeping with our commitment to continuous improvement. These improvement opportunities will serve to further strengthen our already robust regulatory regime.

The Board continues to strive for excellence in all aspects of our organization and we recognize our staff as being the critical factor to our ongoing success. Our staff is highly regarded for their knowledge and expertise and are regularly sought out by provincial and federal government departments, agencies, and boards; industry; as well as international oil and gas regulators and associations for their contribution and input on nearly all facets of offshore oil and gas exploration and development.

In addition to investing in our staff, we continue to refine our internal management systems to ensure the effective and efficient delivery of our mandate, and have introduced an integrated risk management framework which we will build upon in the upcoming year.

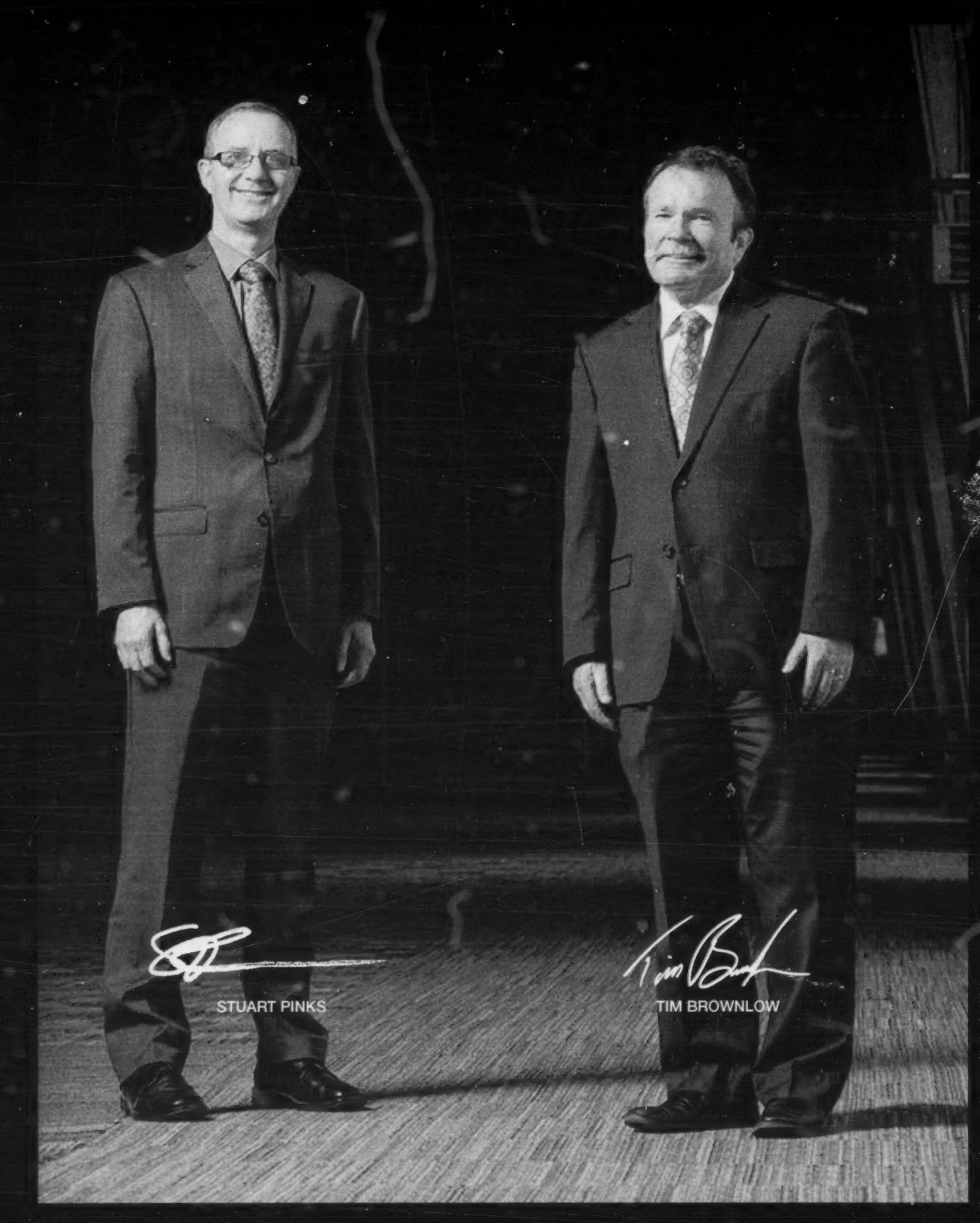
The work that has been carried out over the past year by our relatively small organization is nothing short of impressive. This annual report provides updates from all of our departments and insight into the key initiatives they have undertaken to contribute to the achievement of our regulatory mandate.

These are exciting times ahead with the rejuvenation of our offshore. We will ensure it is managed in a safe and environmentally sound manner as we go forward.

STUART PINKS, CEO; TIM BROWNLOW, ACTING CHAIR

As Acting Chair, I would like to express on behalf of the Board members how proud we are of Stuart and his team as well as the very good working relationship they have in place with our Provincial & Federal counterparts.

TIM BROWNLOW, ACTING CHAIR


STUART PINKS
TIM BROWNLOW

REPORT FROM THE CHAIR OF THE HEALTH, SAFETY AND ENVIRONMENT COMMITTEE

The Board's Health, Safety and Environment (HSE) Committee, which reports to the full Board, continues to provide additional oversight of, and guidance to, health, safety and environmental regulatory practices. Assembled since 2011, the Committee comprises Board Members with extensive, direct experience working in the offshore industry. The Committee meets regularly with OPS/HSE staff to review and examine in detail, the HSE aspects of offshore operations.

In addition, the committee members avail themselves of worldwide HSE management practices through participation in the annual International Regulators Forum (IRF) meetings which bring together ten member countries, dedicated to the common cause of raising offshore health and safety standards. Lessons learned from petroleum exploration and development incidents in the world's major offshore petroleum basins are shared and best practices established.

The Committee views coming years as challenging ones for the industry as all phases of the petroleum production lifecycle will be in play including new 3D Seismic Exploration, possible deep water drilling, sour gas production from shallow water (Deep Panuke) and the maturing Sable project.

In carrying out its regulatory mandate, the Board has structured its organization to ensure that decision making respecting safety and environmental protection is paramount. The checks and balances in place, carried out by highly qualified Board staff, form a well-respected regulatory regime that is focused on the prevention of incidents, and one that holds operators fully accountable and responsible for their activities.

DOUG GREGORY

SECTION 1 : CORE REGULATORY RESPONSIBILITIES

The Board's core regulatory responsibilities span the full lifecycle of offshore activities including resource assessments, exploration, development, production and abandonment. These responsibilities are aligned with the Board's mission, vision and mandate, which is described below.

1.1 BOARD MISSION

The efficient, fair and competent regulation of exploration and production activities enabling safe and responsible development of Nova Scotia's offshore petroleum resources.

1.2 BOARD VISION

The CNSOPB is respected both locally and internationally for its proficient regulation of offshore petroleum activities providing high benchmarks for others to emulate.

1.3 BOARD MANDATE

To apply the provisions of the federal/provincial Accord Act Legislation governing offshore oil and gas activities, including those respecting:

- Health and safety of workers;
- Protection of the environment during petroleum activities;
- Management and conservation of petroleum resources;
- Canada-Nova Scotia employment and industrial benefits;
- Issuance of licences for exploration and development; and
- Resource evaluation, data collection, curation and distribution.

Organizational decision making is structured in a manner that recognizes safety as paramount and environmental protection as second only to safety.

1.4 THE BOARD'S KEY ACCOUNTABILITIES

The following describes the CNSOPB's key accountabilities in fulfilling its core regulatory mandate as described in the Accord Act legislation.

HEALTH & SAFETY OF OFFSHORE WORKERS

- To advance health and safety of offshore workers.
- To determine the readiness of operators to conduct offshore activities in a safe and compliant manner when considering authorization and approval applications from operators.
- To monitor operations for compliance with applicable regulatory requirements including health and safety management systems and plans, authorization and approval conditions, and operator commitments.

THE MANAGER GROUP

Left to Right:
Keith Landra, Stuart Pinks, Troy MacDonald, Tanya Taylor White,
Kim Nauss, Michael S. McPhee and Carl Makrides

PROTECTION OF THE ENVIRONMENT

- To advance protection of the environment.
- To determine the readiness of operators to conduct offshore activities in an environmentally responsible and compliant manner when considering authorization and approval applications from operators.
- To monitor operations for compliance with applicable regulatory requirements including environmental management systems and plans, authorization and approval conditions, and operator commitments.

MANAGEMENT AND CONSERVATION OF OFFSHORE PETROLEUM RESOURCES

- To advance conservation of offshore petroleum resources.
- To determine the readiness of operators to conduct offshore activities in a manner that will allow for a comprehensive evaluation of all petroleum resources, and additionally that production activities will optimize recovery of petroleum resources, when considering authorization and approval applications from operators.
- To monitor operations for compliance with applicable regulatory requirements including relevant resource evaluation and reservoir management systems and plans, authorization and approval conditions, and operator commitments.

CANADA-NOVA SCOTIA EMPLOYMENT AND INDUSTRIAL BENEFITS

- To assess Canada-Nova Scotia Benefits Plans, and monitor resulting activities, for compliance with applicable regulatory requirements and operator commitments.

COMPLIANCE ENFORCEMENT

- To take necessary enforcement actions so that non-compliances with regulatory requirements are corrected by operators.

ISSUANCE OF LICENCES FOR OFFSHORE EXPLORATION AND DEVELOPMENT

- To manage licensing of lands in compliance with regulatory requirements for interests.

RESOURCE EVALUATION, DATA COLLECTION, CURATION AND DISSEMINATION

- To build and develop a knowledge base for the Nova Scotia Offshore Area through the collection, curation, interpretation and dissemination of data from exploration and production activity.

1.5 STRATEGIC DIRECTION

In late 2011, the Board reviewed and reaffirmed its commitment to its three previous strategic priorities while adding a fourth, focusing on enhancing consultation and communication with targeted stakeholders so as to strengthen public confidence:

Optimizing Resource Management;

Regulatory Modernization;

Organizational Excellence; and

Communication/Stakeholder Relations.

Progress has been made in each of these areas, including:

- The Board updated its Mission Statement, Vision and definition of Key Accountabilities;
- The Board has made refinements to the processes of the Board's Health, Safety and Environment (HSE) Committee and reporting structures to separate HSE decision making from other aspects of the Board's mandate;
- In preparation for future deepwater drilling which may encounter oil, and in light of the Auditor General's recommendations, the Board has been working with the Canadian Coast Guard to develop a Memoranda of Understanding (MOU) to ensure that roles and responsibilities in case of a spill are appropriately understood, delineated and coordinated;
- A corporate risk profile for the organization was created, summarizing risks and identifying improvement opportunities. A corporate risk management framework for the ongoing, systematic assessment of inherent and residual risks was also developed; and
- The Data Management Centre (DMC) was upgraded to improve the way geoscience data is disseminated. The new system allows for improved scalability and growth and the interface is more logical and intuitive for users to navigate and find the information they require.

THE PURPOSE OF THE HSE COMMITTEE IS TO ASSIST THE BOARD IN FULFILLING ITS HEALTH, SAFETY AND PROTECTION OF THE ENVIRONMENT MANDATE AS SET OUT IN THE ACCORD ACTS AND REGULATIONS.

SECTION 2 : BOARD COMMITTEES

Further enhancing the Board's governance of the organization are Board Committees: Health, Safety and Environment; Audit; and Human Resources.

2.1 HEALTH, SAFETY AND ENVIRONMENT COMMITTEE

The purpose of the Health, Safety and Environment (HSE) Committee is to assist the Board in fulfilling its health, safety and protection of the environment mandate as set out in the Accord Acts and Regulations. The Committee makes recommendations for the Board's strategic direction with respect to its regulatory responsibilities for health, safety and environmental protection and to promote the use of best practices and continuous improvement.

The Committee reviews and obtains reasonable assurance that the necessary policies, systems, guidelines and Memoranda of Understanding are in place for ensuring regulatory due diligence by the Board in carrying out its mandate with respect to health, safety and protection of the environment, and assesses their effectiveness. Furthermore, it reviews and obtains reasonable assurance that organizational decision making recognizes that safety shall be paramount and that environmental stewardship and protection is viewed as second only to safety.

This Committee is chaired by Doug Gregory and includes fellow Board members Tim Brownlow and Brian Lewis.

2.2 AUDIT COMMITTEE

The primary function of the Audit Committee is to assist the Board in fulfilling its organizational governance role by: reviewing the financial information that is provided to the Governments and the public; the systems of internal controls and risk management that the Board has established; and all audit processes.

Primary responsibility for financial reporting, information systems, risk management and internal controls of the Board is vested in management and is overseen by the Board.

This Committee is chaired by Paul Taylor and includes fellow Board members Brian Lewis and Rodney MacDonald.

2.3 HUMAN RESOURCES COMMITTEE

The purpose of the Human Resources Committee is to assist the Board in fulfilling its obligations relating to human resource policy and related matters and to establish a plan of continuity and development of senior management for the organization.

The Committee works with the CEO to review and recommend to the Board, for its approval, the overall strategy respecting human resources and planning. Elements within this strategy include compensation, benefits plans, recruitment, training, performance management and other related matters. The Committee reports annually to the Board on the implementation of these strategies.

This Committee is chaired by Tim Brownlow and includes fellow Board members Rodney MacDonald and Doug Gregory.

SECTION 3 : SUMMARY OF OFFSHORE WORK OR ACTIVITIES

No work or activity related to the exploration for, development of or transportation of petroleum can be conducted without a specific authorization issued by the Board.

Prior to issuing any such authorizations, the Board requires that the following be submitted in a satisfactory form:

- Canada-Nova Scotia Benefits Plan;
- Development Plan (for development-related activities);
- Safety Plan;
- Environmental Assessment;
- Environmental Protection Plan;
- Environmental Effects Monitoring Plan (where applicable);
- Emergency Response, Spill Response and Contingency Plans;
- Financial Security;
- Summary of Proposed Operations;
- Certificate of Fitness (where applicable); and
- Declaration of Operator.

Figure 1 provides a summary of work and activity authorization applications that were submitted and approved between April 1 and March 31 over the last four fiscal years.

TABLE 1
Summary of Work and Activities

WORK OR ACTIVITY APPROVED	NUMBER OF APPLICATIONS APPROVED			
	2009/10	2010/11	2011/12	2012/13
DRILLING				
Drilling Program Authorization	2	-	-	-
Approval to Drill a Well	3[a]	-	-	-
Application to Alter a Well	-	3	-	-
GEOPHYSICAL/GEOTECHNICAL/GEOCHEMICAL				
Seismic	-	1	-	-
Seabed/Geotechnical Evaluations	-	-	3	-
INSTALLATIONS				
Authorization to Install/Remove:				
Phase 2 – Pipelay, trenching and pre-commissioning (Deep Panuke)	1	-	-	-
Wellhead protection structures and associated pile driving (Deep Panuke)	1	-	-	-
Flowline Installation Program (Deep Panuke)	-	1	-	-
Umbilical Installation Program (Deep Panuke)	-	-	1	-
Phase 1 - Hook-up and commissioning (Deep Panuke) - Anchor installation and ROV debris survey (Deep Panuke)	-	-	1	-
Phase 2 - Hook-up and commissioning (Deep Panuke) - PFC installation and hook-up and commissioning (Deep Panuke)	-	-	1	-
DIVING				
Diving Program Authorization	-	1	1	-
PRODUCTION				
Production Operations Authorization (SOEP):				
Renewal of Authorization	-	1	-	-
Application to Alter a Well (SOEP)	2	-	-	2
TOTAL	**9**	**7**	**7**	**2**

NOTE: (a) Comprises two wells plus one sidetrack

SECTION 4 : HEALTH AND SAFETY

The health and safety of offshore workers is paramount for the Board.

Prior to the Board authorizing any petroleum activity in the Nova Scotia offshore area, an operator must clearly demonstrate that it has a robust safety management system in place, and must describe how it is being applied to the proposed activity by way of a safety plan. An operator must also demonstrate that it has properly identified the health and safety hazards associated with the proposed activity, and that these risks have been evaluated and can be appropriately mitigated and managed.

Once an authorization has been issued, the Board has a compliance monitoring and enforcement program in place to check that operators follow their safety management system and comply with regulatory requirements. This monitoring also ensures that the operators take the necessary actions to correct any non-compliances that are identified and prevent their recurrence.

4.1 PRE-AUTHORIZATION SAFETY REVIEWS

All operators applying to the Board to conduct petroleum activities in the Nova Scotia offshore area must submit prescribed safety-related documentation, including a safety plan, for review. The plan establishes the procedures, practices, resources and monitoring measures necessary to ensure the safety of a proposed project or activity.

In conducting its review of safety-related documentation, Board staff ensures it addresses several critical aspects, such as:

- Hazard identification, risk assessment and risk control;
- Management system linkages;
- Authorities/command structure;
- Physical environmental monitoring;
- Training & qualifications;
- Compliance monitoring; and
- Contingency/emergency response planning.

In cases where the proposed activity requires use of a drilling, production, diving, or accommodation installation, an application for authorization must be supported by a valid Certificate of Fitness issued by a Certifying Authority that is designated by regulation. The Certifying Authority is required to review the design, construction, transportation and installation at the project location, along with the operating manuals, and certify to the Board that:

- It is fit for its intended purpose;
- It is in compliance with the regulations; and
- It can be operated safely without polluting the environment.

The Board's Chief Safety Officer is responsible to review and approve the scope of work to be performed by the Certifying Authority in each instance.

As part of their safety reviews, Board staff may conduct their own pre-authorization inspection and audits of vessels and installations for regulatory compliance.

An essential requirement before an authorization may be granted is the submission of a Declaration of Operator by the operating company, which asserts that:

- A detailed assessment has been made of the operator's readiness to proceed;
- All equipment, personnel and procedures are proven fit to proceed safely; and
- They will remain this way until the end of the activity.

A final and critical step in the authorization process is the Board's Chief Safety Officer's recommendation that the proposed activity can be carried out safely after considering the system as a whole and its components, including its structures, facilities, equipment, operating procedures and personnel.

Only upon successful completion of these assessments and procedures can the Board's CEO consider issuing an authorization. This decision is subject to the acceptable completion of additional, non-safety-related assessments carried out by Board staff in relation to other aspects of the Board's regulatory mandate.

4.1.1 SPECIFIC HIGHLIGHTS FROM THE YEAR

In 2012-13, the Board approved two authorizations for petroleum-related activities associated with the Sable Offshore Energy Project operated by ExxonMobil, as detailed in Figure 1. In each case, Board staff conducted pre-authorization reviews prior to issuance of an authorization.

The authorizations issued were:

- To increase the producing interval and production of a Thebaud field gas well
- To increase the producing interval and production of a Venture field gas well

Additionally, an application for an Operations Authorization (Production) was received in November 2011 for the Deep Panuke Offshore Gas Development Project (Deep Panuke project) which will be required prior to production start-up by mid-2013. Board staff has had significant involvement with Encana throughout the fiscal year in pre-authorization activities in relation to this application, including a comprehensive Management System Audit and several pre-startup inspections and system test witnessing.

Furthermore, preliminary administrative and assessment activities commenced in anticipation of a Geophysical Operation by Shell Canada to conduct a seismic program on their Scotian Slope Exploration Licences. Board staff has had significant involvement with Shell in pre-authorization activities in relation to this anticipated application. A listing of all audits and inspections are included in Figure 2.

FIGURE 2
Audits and Inspections

AUDITEE	INSTALLATION / VESSEL		SUMMARY OF AUDIT FOCUS	AUDIT DATE
	NAME	TYPE		
Encana	Deep Panuke Production Field Center	Installation - Fixed Platform	Health & Safety	10-Apr-12
ExxonMobil	Halifax Office (Management System)	Halifax Office	Safety	03-May-12
Encana	Deep Panuke Production Field Center	Installation - Fixed Platform	Health & Safety	22-May-12
ExxonMobil	Halifax Office (Management System)	Halifax Office	Safety	11-Jul-12
Encana	Deep Panuke Production Field Center	Installation - Fixed Platform	Health/Safety/Environment	17-Jul-12
ExxonMobil	M.V. Panuke Sea	Stand By Vessel	Safety	03-Aug-12
Encana	Deep Panuke Production Field Center	Installation - Fixed Platform	Safety	17-Sep-12
ExxonMobil	S. Venture/Thebaud	Installation - Fixed Platform	Health & Safety	27-Sep-12
ExxonMobil	Alma	Installation - Fixed Platform	Health/Safety/Environment	05-Nov-12
Encana	Deep Panuke Production Field Center	Installation - Fixed Platform	Safety	14-Nov-12
Encana	Deep Panuke Production Field Center	Installation - Fixed Platform	Safety	21-Nov-12
ExxonMobil	N. Triumph	Installation - Fixed Platform	Safety & Environment	17-Dec-12
Encana	Deep Panuke Production Field Center	Installation - Fixed Platform	Safety & Environment	14-Jan-13
Encana	Deep Panuke Production Field Center	Installation - Fixed Platform	Safety	23-Jan-13
Encana	Deep Panuke Production Field Center	Installation - Fixed Platform	Safety	26-Jan-13
Encana	Deep Panuke Production Field Center	Installation - Fixed Platform	Safety	06-Feb-13
Shell Canada Ltd.	M.V. Ocean Odyssey	Seismic Vessel	Pre-Authorization & Environment	20-Feb-13
Shell Canada Ltd.	M.V. Geco Tau	Seismic Vessel	Pre-Authorization & Environment	21-Feb-13
Encana	Deep Panuke Production Field Center	Installation - Fixed Platform	Safety	20-Mar-13

4.2 COMPLIANCE MONITORING AND ENFORCEMENT

Activities authorized by the Board are subject to compliance monitoring by Board staff on an ongoing basis.

Operators must submit a variety of reports to the Board providing information on the status of their work programs, and to confirm compliance with specific regulatory requirements. They are required to file operational status reports daily for drilling and production activities, and weekly for other activities. Board staff members review these reports to identify potential health and safety compliance issues.

The Board also routinely reviews minutes from the Joint Occupational Health & Safety Committee (JOHSC) meetings held offshore to ensure that issues raised through this forum are dealt with appropriately by the operator.

Board staff members regularly conduct health and safety compliance audits and inspections at offshore worksites where authorized activities are being carried out.

As a result of the monitoring of day-to-day operations, or audits and inspections that have been conducted, Board staff may identify or become aware of workplace conditions or actions that do not comply with legislation, regulations, or conditions of authorization. Pursuant to the Board's established compliance and enforcement policy, it will normally seek voluntary compliance from the operator to correct such matters. Other possible actions may include issuance of orders, suspension or revocation of approvals and authorizations, and prosecution.

Operators are required to report health and safety-related incidents to the Board when they occur. For each reported incident, the Board verifies that the operator has taken the appropriate actions to determine the cause of the incident and to prevent its recurrence. The Board reviews this information, as well as information from other independent sources, to determine possible trends and commonalities, and to identify specific target areas for improvement. More significant incidents may also be investigated independently by Board staff.

4.2.1 SPECIFIC HIGHLIGHTS FROM THE YEAR

In 2012-13 the Board conducted the above described compliance monitoring and enforcement related to the following activities:

- Authorized hook-up and commissioning activities for the Deep Panuke Production Field Centre for the Deep Panuke project.
- Continuing operation of the Sable Offshore Energy Project, including a comprehensive audit of the associated ExxonMobil management system.

Details of all audits and inspections carried out during 2012-13 are included in Figure 2.

INCIDENT INVESTIGATIONS

All reportable incidents were followed-up by Board staff to ensure that causes and corrective actions were identified.

FIGURE 3:
Disabling Injury Statistics

	2008	2009/10(2)	2010/11	2011/12	2012/13
NUMBER OF DISABLING INJURIES[1]					
Installations	1	4	2	0	3
Vessels	0	4	1	0	1
Aviation	0	0	0	0	0
TOTAL	**1**	**8**	**3**	**0**	**4**
PERSON HOURS					
Installations	230,880	551,033	450,857	549,116	716,272
Vessels	87,993	1,060,901[3]	403,868	413,729	268,529
Aviation	27,312	34,154	45,124	22,542	24,301
TOTAL	**346,185**	**1,646,088[3]**	**899,849**	**985,387**	**1,009,102**
FREQUENCY RATE (PER 200 000 PERSON HOURS)					
Installations	0.87	1.45	0.89	0	0.84
Vessels	0	0.75[3]	0.50	0	0.74
Aviation	0	0	0	0	0
TOTAL	**0.58**	**0.97[3]**	**0.67**	**0**	**0.79**

NOTE:

(1) The term "disabling injury" means an employment injury or an occupational disease that:

(a) prevents an employee from reporting for work or from effectively performing all the duties connected with the employee's regular work on any day subsequent to the day on which the disabling injury occurred, whether or not that subsequent day is a working day for that employee,

(b) results in a loss by an employee of a body member or part thereof or in a complete loss of its usefulness, or

(c) results in the permanent impairment of a body function.

(2) The disabling injury statistics for 2009/10 are based on 15 months (inclusive of Q1 2009 – Q1 2010); this is to align with the fiscal-year reporting period.

(3) Person hours on vessels for the 2009/10 reporting period have been revised to include additional person hours submitted by the operator subsequent to the 2009/10 annual report being published. The additional person hours also required adjustment to the total person hours, vessel injury frequency rate and total injury frequency rate.

4.3 SAFETY PERFORMANCE

INJURY STATISTICS

In 2012-13 fiscal year, there were 1,009,102 person hours worked under Board authority in the Nova Scotia offshore area. During that period, there were 4 disabling injuries (see Figure 3 for greater detail).

The Board has ensured that each of these disabling injuries were properly investigated and that corrective actions have been taken.

4.4 SECURITY

The Board continues to promote measures to ensure the security of facilities involved in oil and gas exploration and production in the Nova Scotia offshore area is in alignment with the Government of Canada's National Critical Infrastructure Assurance Program. Board representatives attend semi-annual classified briefings held in Ottawa by the Energy Infrastructure Protection Division (EIPD) of Natural Resources Canada, in collaboration with the Canadian Security Intelligence Service.

These briefings, attended by energy sector stakeholder personnel with appropriate security clearance, are provided as part of an EIPD effort to facilitate the exchange of information between the public and private sectors.

4.5 REGULATORY QUERIES

Operators and installation owners may wish to seek clarification on a regulatory requirement; propose the use of alternate equipment, methods, measures or standards to those referenced in the regulations; or seek an exemption from a regulatory requirement. The Board's Chief Safety Officer and/or Chief Conservation Officer may authorize such regulatory deviations if satisfied that the proposal would provide an equivalent or acceptable level of safety, protection of the environment and resource conservation.

In 2012-13, there were eight regulatory queries approved by the Board: six for the Deep Panuke project and two for SOEP. Summary level information can be found in Figure 4.

4.6 KEY INITIATIVES

4.6.1 INTERNATIONAL REGULATORS' FORUM

Agência Nacional do Petróleo, Gás Natural e Biocombustíveis (ANP) of Brazil hosted the nineteenth annual International Regulators' Forum (IRF) meeting in September 2012 in Rio de Janeiro. IRF membership has grown to now include regulators from ten countries with offshore oil and gas activities (Australia, Brazil, Canada, Denmark, Mexico, the Netherlands, New Zealand, Norway, United Kingdom, and United States).

TABLE 4
Regulatory Queries

ORIGINATOR	INSTALLATION / VESSEL	SUMMARY	SUBMISSION DATE	APPROVAL DATE
ExxonMobil	Alma	RQF-153 - Temporary Equipment for Alma riser line repair	13-Apr-12	13-Apr-12
Encana	Deep Panuke Production Field Centre (PFC)	RQF-064 - Installed Height of "Navigational Equipment" Lights on PFC	15-Jun-12	20-Jun-12
Encana	Deep Panuke Production Field Centre (PFC)	RQF-065 - Installation Regulations s.63 (Operations Manual)	14-Aug-12	29-Aug-12
ExxonMobil	Thebaud Platform	RQF-154 - Temporary Increase of Thebaud Platform POB to 60	29-Aug-12	31-Aug-12
Encana	Deep Panuke Production Field Centre (PFC)	RQF-066, GMDSS - Watch Keeping Limitation and Reserve Source of Energy	04-Sep-12	19-Oct-12
Encana	Deep Panuke Production Field Centre (PFC)	RQF-067 - Dry Deluge Firewater Pipework Hydrotest Exemption	01-Feb-13	06-Feb-13
Encana	Deep Panuke Production Field Centre (PFC)	RQF-039 - Living Quarters Airlocks	26-Feb-13	13-Mar-13
Encana	Deep Panuke Production Field Centre (PFC)	RQF-025 - Acceptance of Certifying Organizations for Electrical/Instrumentation/ Telecommunications Equipment	04-Mar-13	13-Mar-13

The objectives of the IRF are to promote best sustainable safety performance globally, and to provide a network for exchanging information on such topics as:

- Offshore health and safety trends;
- Industry health and safety performance;
- Lessons from incidents;
- Industry best practices;
- Regulatory practice; and
- Measuring the effectiveness of regulatory activities.

The annual IRF meeting addressed key strategic focus areas including: performance measurement and indicators, safety culture and leadership, fitness to operate criteria, and the use of standards and industry best practices. In addition, representatives from the International Oil and Gas Producers Association (OGP) and the International Association of Drilling Contractors (IADC) attended part of the meeting to discuss blow-out preventer reliability, and well integrity and operational issues.

Further information on IRF and its activities, including the upcoming conference, can be found on its website at http://www.irfoffshoresafety.com.

The CNSOPB, along with the Canada-Newfoundland and Labrador Offshore Petroleum Board, is leading the IRF project to develop guidance for regulators as to how best to hold industry accountable for implementing an effective safety culture. Deliverables include:

- Development of guidance on what a safety culture definition should include (e.g. its attributes);
- Discussion of linkage between leadership and safety culture; and
- Development of a representative safety officer's tool kit for assessing safety culture.

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) of Australia has agreed to host a 4th International Regulators' Offshore Safety Forum in Perth, Australia in October 2013. This is in follow-up to previous conferences held in London, England in 2005, Miami, USA in 2007, Vancouver, Canada in 2010, and Stavanger, Norway in 2011. These conferences bring together leading government, regulatory and industry experts from around the world to share best practices for offshore safety.

4.6.2 ACCORD ACT OHS AMENDMENTS

Provincial and federal governments continue to finalize proposed amendments to the Accord Acts regarding offshore Occupational Health and Safety (OHS), with plans to introduce the amendments in 2013. Board staff has assisted the governments in revising the legislative amendments, as well as in developing related transitional regulations and memorandums of understanding. Until these legislative and regulatory changes take effect, the Board's OHS requirements remain in place to provide direction to operators and ensure the protection of offshore petroleum workers. These requirements are a condition of all activities authorized by the Board.

4.6.3 HELICOPTER TRANSPORTATION SAFETY

During the past year, the Board has been engaged in several efforts directed toward the safety of helicopter transportation.

The Board remains active on the Canadian Association of Petroleum Producers' (CAPP) Atlantic Canada Offshore Petroleum Training and Qualifications Committee. An important part of the group's activities is the evaluation of offshore industry training programs. In the fiscal year 2012-13, the Training and Qualifications Standard Practice was revised and published with improvements to the requirements for offshore survival training programs.

The Board's Chief Safety Officer is an active member of the Canadian General Standards Board Committee for Marine Abandonment Suits and Helicopter Transportations Suit Systems. A revised Helicopter Transportation Suit Standard was published in 2012. East Coast Operators' plans remain on schedule to introduce new passenger transportation suits based on this standard for the offshore workforce in 2014.

Board staff continues to engage regional and national partners, as well as international regulators, in pursuit of knowledge necessary to improve approaches to helicopter safety for the Nova Scotia offshore area. Recognizing that work on the findings and recommendations continues in relation to the March 2009 crash of a Sikorsky S-92 helicopter in Newfoundland's offshore jurisdiction, the Board has kept a particular focus on the advice of the multi-stakeholder group focussed on implementing the recommendations arising out of the Offshore Helicopter Safety Inquiry in the Newfoundland and Labrador offshore area. The Board engages stakeholders and considers any issues or improvements identified in the context of potential benefits to helicopter safety in the Nova Scotia offshore area.

4.6.4 PREPARATIONS FOR DEEPWATER DRILLING

In preparation for deep water drilling that may encounter oil, the Board has developed detailed action plans to ensure its readiness from a regulatory oversight perspective. These action plans include items related to expectations to be placed on Operators, along with further enhancements to Board regulatory practices and preparedness, and are focused in five key areas:

- Safe drilling/blow-out prevention;
- Emergency preparedness and contingency planning;
- Spill response preparedness;
- Competencies, training and safety/environmental culture; and
- Updating/developing Memoranda of Understanding with other federal agencies that may participate or assist in emergency spill response.

PRIOR TO ISSUING EXPLORATION LICENCES IN NEW OFFSHORE AREAS, THE BOARD CONDUCTS STRATEGIC ENVIRONMENTAL ASSESSMENTS (SEAs) TO IDENTIFY SPECIFIC ENVIRONMENTAL ISSUES THAT MAY EXIST WITHIN THESE AREAS.

SECTION 5 : PROTECTION OF THE ENVIRONMENT

The Board's mandate includes protection of the offshore environment during all phases of petroleum activity, including exploration, development, production and project abandonment. The Board ensures that these activities are conducted in a manner such that environmental hazards are properly identified, and the associated risks are assessed, mitigated and managed.

The Board has in place processes that ensure environmental best practice and transparency of process.

Prior to issuing exploration licences in new offshore areas, the Board conducts Strategic Environmental Assessments (SEAs) to identify specific environmental issues that may exist within these areas, and to inform the Board's decision making process with regards to the potential issuance of specific exploration licences. All subsequent projects in an area covered by a SEA, including seismic programs and exploratory wells, require project specific EAs prior to the Board's authorization of any proposed offshore petroleum-related activity. Project specific EAs must take into account and further assess any particular environmental issues identified in a SEA.

The Board has updated its environmental assessment policies and procedures to reflect changes in the Canadian Environmental Assessment Act, 2012 (CEAA 2012). The Accord Act EA process is of the same rigour as the former CEAA "Screening" EA process.

The Board has received the written commitment of both Environment Canada (EC) and Fisheries and Oceans Canada (DFO) confirming their continued support for environmental reviews of projects not designated under the CEAA 2012. This commitment will be reflected in updated memoranda of understanding with both DFO and EC.

All EAs must also comply with other environmental protection legislation, such as the Species at Risk Act, to ensure the protection of valued environmental components (VECs). The Board may impose additional mitigation measures or operating constraints on an authorization it may grant based on the results of an EA. Environmental Effects Monitoring (EEM) is used to confirm predicted project effects and verify mitigation measures identified during the EA process. EEM programs are conducted annually on production activities, and occasionally for some exploration activities, and consist of scientific field studies of effects on VECs.

In support of the authorization process for exploratory drilling and development programs, the operator must submit an Environmental Protection Plan (EPP) and a spill response plan. Both identify hazards and describe how the operator's management structure and operational practices ensure environmental protection. Authorization is only granted to the operator if the EPP and spill response plan are deemed acceptable by

the Board. The EPP must contain commitments to meet or exceed the Board's Offshore Waste Treatment Guidelines and the Offshore Chemical Selection Guidelines. The Board's staff members monitor operator commitments to protect the environment made in the EA and EPP.

Operators are required to submit daily, monthly and annual reports on key processes and activities for review by Board staff members, who also conduct environmental compliance audits and inspections of offshore petroleum activities that have been authorized.

5.1 THE FEDERAL AUDITOR GENERAL REPORT

The federal Auditor General's Commissioner of the Environment and Sustainable Development (CESD) conducted a rigorous, in-depth performance review of the Board's management of environmental risks and impacts associated with offshore oil and gas activities during 2012-13. A copy of the audit report can be found on the Auditor General of Canada's web page (titled Atlantic Offshore Oil and Gas Activities, Fall 2012).

The report concludes that the Board is appropriately managing the environmental aspects of its mandate in regulating Offshore Nova Scotia's current natural gas projects. Specifically, the report highlights a number of positive findings including:

- The Board exercises due diligence when assessing and approving offshore projects and activities;
- The Board takes adequate steps to ensure that operators comply with environmental requirements.
- Overall, the Board manages the current environmental impacts associated with natural gas activities in the Nova Scotia offshore area in a manner consistent with the size and scale of current operations.

As with any audit, certain improvement opportunities have been identified which have been accepted and endorsed, in keeping with the Board's commitment to continuous improvement. They will serve to further strengthen our already robust regulatory regime; many of these are already underway or have been completed.

The report highlights a concern with respect to preparedness of the Board and other federal agencies in responding to a major oil spill, and specifically, in the unlikely scenario where the Board may have to take over the management of the response to a spill. At present, production offshore Nova Scotia is natural gas, with exploratory drilling that may encounter oil not expected until 2015.

Protection of the environment through managing risk, the application of preventative measures, and the response to any spills that may occur is the responsibility of operators. The Board's focus is, and will continue to be, on ensuring that operators and drilling contractors have the necessary competencies to carry out their work, that they exercise due diligence in preventing incidents from occurring, and that they clearly demonstrate that they have the capability and capacity to respond to any incidents that may occur including spills. It is therefore unlikely that the Board will have to take over management of spill response from an operator. Notwithstanding this, the CESD audit effectively validated a number of actions that were

already underway at the Board. This includes working in a coordinated manner with other federal responders as the Board readies itself for overseeing future drilling activities that may encounter oil, including preparedness for the unlikely scenario of taking over the management of an oil spill response. These actions will be completed ahead of the commencement drilling activities anticipated in 2015.

In carrying out its regulatory mandate, the Board has structured its organization to ensure that decision making respecting safety and environmental protection is paramount. The checks and balances in place, carried out by highly qualified Board staff, form a well-respected regulatory regime that is focused on the prevention of incidents, and one that holds operators fully accountable for their activities.

A full list of the Audit General's recommendations from the report, and an outline of the Board's actions to address these, is available on the Board's website.

5.2 ENVIRONMENTAL ASSESSMENT

5.2.1 GENERAL OVERVIEW

Since 2003, six SEAs have been conducted, and all offshore oil and gas activities have been subject to a project specific EA, either under CEAA or recently under the Accord Act EA process for exploration activities.

Consideration of stakeholder comments is an important part of the EA review process. An internet-based Public Registry, managed by the Canadian Environmental Assessment Agency, tracks all EAs conducted under the CEAA. The Board has an EA Registry which includes postings of project descriptions, scoping documents, draft and final EAs and related correspondence on its own website. The public can follow correspondence and reports regarding a proposed activity on this website from the project description stage through the EA and associated follow-up activities. The public can also submit comments during the EA process for consideration.

The Board's practice regarding SEAs is to ensure that areas identified by the Board as geoscience study areas for future Call for Bids (i.e. areas where there is the most potential for petroleum exploration) will have completed and up to date SEAs in place ahead of issuing a Call.

The Board will continue to identify priority areas of research to support environmental assessment in cooperation with federal departments and agencies and other stakeholders. This would be for targeted research by both the public and private sectors, through initiatives such as the Environmental Studies Research Funds and the Program of Energy Research and Development, and through a wider body of domestic and international work in specific areas.

OPERATORS MUST SUBMIT AN ENVIRONMENTAL PROTECTION PLAN (EPP) AS PART OF THEIR APPLICATION TO THE BOARD FOR AUTHORIZATION TO CARRY OUT PETROLEUM RELATED ACTIVITIES.

5.2.2 SUMMARY OF ENVIRONMENTAL ASSESSMENTS CONDUCTED

The EA process for the Shell Canada Ltd seismic program on ELs 2423, 2424, 2425, 2426, and 2430 began in the fall of 2012 and is continuing.

In association with Call for Bids NS 12-1, a SEA was conducted to aid decision making with respect to issuing Exploration Licences in the call area. This SEA concluded that, provided potential future operators adhere to applicable standards and regulations and implement appropriate mitigation and monitoring, the issuance of exploration licences in the assessed area is not expected to result in significant adverse environmental effects.

5.3 ENVIRONMENTAL PROTECTION PLANS AND SPILL RESPONSE PLANS

5.3.1 GENERAL OVERVIEW

Operators must submit an Environmental Protection Plan (EPP) as part of their application to the Board for authorization to carry out petroleum related activities. The EPP sets out the procedures, practices, resources, and monitoring necessary to manage hazards and protect the environment during the proposed activity. Essentially, the EPP serves as a reference document for project personnel that describes, or maps out, all environment-related processes and documents.

An essential component of environmental protection is spill prevention and response. The Spill Response Plan describes the spill prevention process the operator would use, such as practices, procedures, physical barriers, and effluent control and monitoring equipment, and to identify risks and respond to incidents. The goal of a spill response plan is to reduce the impact on people, property, and the environment, and to mitigate an incident as quickly as possible. Spill response plans for Nova Scotia's offshore production projects are available on the Board's website.

5.3.2 SPECIFIC HIGHLIGHTS FROM THE YEAR

In 2012, revised EPPs were submitted by operators, and reviewed and accepted by the Board, for both the Deep Panuke Project's production phase and the Sable Offshore Energy Project (SOEP).

Board staff also led ongoing efforts with DFO and EC to review post-EA commitments for the Deep Panuke and Sable Offshore Energy Projects to ensure that obligations of operators are met.

5.4 ENVIRONMENTAL EFFECTS MONITORING

5.4.1 GENERAL OVERVIEW

Environmental Effects Monitoring (EEM) involves scientific monitoring of the effects of offshore petroleum activities on specific aspects of the surrounding environment. EEM programs are conducted throughout each year, as are reviews of the program design, which may change annually. EEM is required for all development projects, and occasionally for certain exploration activities.

An EEM review process framework was developed jointly in 2005 between the Board, CEAA, DFO and EC. The purpose of this framework is to strengthen cooperation and coordination between government, regulators and industry for the design,

implementation and review of EEM programs for Nova Scotia's offshore oil and gas sector.

SABLE OFFSHORE ENERGY PROJECT (SOEP)

ExxonMobil conducts annual EEM programs for the SOEP, which monitor the project's effects on specific components of the surrounding environment.

The 2012 EEM program focused on site-related effects on benthic and fish habitat, shellfish, seabirds, air quality, and fish health, as well as the effects of produced water on the environment. The results of the EEM program are submitted to the Board for review, with advice from DFO and EC, in the first quarter of each year.

DEEP PANUKE OFFSHORE GAS DEVELOPMENT PROJECT

Encana now submits an annual Offshore Production EEM plan, and submitted its first annual results in March 2012. The 2012 plan focused on effects on marine water quality, sediment chemistry and toxicity, fish habitat alterations and marine wildlife observations as a result of commissioning activities. The 2013 program will include these elements, as well as fish health and air quality monitoring. Similar to the SOEP EEM program, Board staff, with advice from DFO and EC, review the Deep Panuke EEM plan in the first quarter of each year.

5.5 COMPLIANCE MONITORING AND ENFORCEMENT

5.5.1 GENERAL OVERVIEW

The Board has in place an effective monitoring program to evaluate operator compliance with environmental regulatory requirements while conducting authorized petroleum-related activities. Operators are required to submit reports detailing the status of their work programs on an ongoing basis, along with other documentation to demonstrate regulatory compliance. Operational status reports are provided on a daily basis for drilling and production activities, on a monthly basis regarding produced water quality, and on a weekly basis for other activities. Reports filed with the Board are reviewed by staff to identify environmental compliance issues, which are addressed accordingly.

Board staff members also regularly conduct environmental compliance audits and inspections at offshore worksites and operator offices.

5.5.2 MONITORING ACTIVITIES/HIGHLIGHTS

Environmental monitoring of the SOEP conducted by ExxonMobil consists of two components: compliance monitoring and EEM (addressed above). Compliance monitoring, such as monitoring of discharge levels, is in place to ensure compliance with the regulations, guidelines, conditions of authorization and all applicable laws. Results are submitted to the Board regularly for review.

The production start date for Deep Panuke is currently targeted for mid-2013. In 2012, there were several activities related to this project that Board staff monitored from an environmental perspective, including the commissioning of the Production Field Centre. Monitoring of production operations to ensure regulatory compliance will commence once start-up has been completed.

5.5.3 AUDITS/INSPECTIONS

During the fiscal year the Board concluded a Readiness for Operations audit of the Deep Panuke Production Field Centre (PFC), of which environmental protection was a significant component. The Board also initiated a joint Federal Halocarbon Regulations inspection of the Deep Panuke PFC with EC. The on-site inspection will be executed post start-up.

In addition to the above noted environment-specific inspections, environmental compliance assurance is usually included in the scope of other audits and inspections as noted in Figure 2.

5.6 ENVIRONMENTAL PERFORMANCE

SPILLS AND RELEASES

Regulations provide that all spills and releases are to be reported to the Board and other applicable government departments. The Board reviews and/or investigates potential environmental impacts of each spill and accidental release. Board staff also monitors spill occurrences to determine if any trends are occurring. Environmental concerns include the potential impact of petroleum products on seabirds and the impact of spills on the marine environment.

There were seven spills to the sea and two natural gas releases reported during the 2012-13 fiscal years.

Figure 5 below categorizes the spills to the sea.

5.7 KEY INITIATIVES

5.7.1 FISHERIES ADVISORY COMMITTEE

The Board's Fisheries Advisory Committee (FAC) includes representatives from various fishing groups in Nova Scotia, Department of Fisheries and Oceans (DFO), the Nova Scotia Department of Agriculture and Fisheries, Natural Resources Canada, and the Nova Scotia Department of Energy. FAC members provide advice and suggestions to the Board for consideration in Calls for Bid processes, environmental assessments, activity authorization applications, and the development of Board guidelines. Members are provided with information about petroleum activities on a regular basis. Formal FAC meetings are held 3-4 times annually to inform and engage members in a discussion of upcoming projects and other petroleum-related activities. Committee members are provided with notice of all environmental assessments and are invited to submit comments to the Board for consideration during the review processes.

There was increased participation in FAC meetings in 2012, due to the interest in the Shell Canada Ltd seismic program on ELs 2423, 2424, 2425, 2426, 2429 and 2430.

FIGURE 5:
Spills to the Sea
Summary

MATERIAL	LESS THAN 1L	1-10L	11-160L	GREATER THAN 160L	TOTAL
Hydraulic Oil	2	-	1	-	3
Diesel	4	-	-	-	4
Total	6	-	1	-	7

NOTE: Does not include minor exceedences to authorized discharge limits (e.g. oil in produced water) or gas releases.

OPERATIONS/HEALTH, SAFETY & ENVIRONMENT

Left to Right:
Eric Theriault, Kim Hilchie, Elizabeth MacDonald, Keith Landra, Joachim Pektzilikoglou, Gerald Sheehan, Robert Normore and Dylan Scratch
Not Pictured: **Dave Scratch**

5.7.2 INTERNATIONAL OFFSHORE PETROLEUM ENVIRONMENTAL REGULATORS' GROUP

The Board continues to participate in the International Offshore Petroleum Environmental Regulators' Group (IOPER), established in 2008. Participating countries include Canada, Brazil, Australia, the United States, the United Kingdom, and Norway. This network of offshore petroleum environmental regulators provides members with mutual support and advice while promoting best environmental performance globally. Information exchanged among members may include:

- Offshore environmental trends;
- Petroleum industry environmental performance;
- Lessons from environmental incidents;
- Industry best environmental practices;
- Environmental regulatory practices and initiatives; and
- Measuring the effectiveness of regulatory activities.

Agência Nacional do Petróleo, Gás Natural e Biocombustíveis (ANP) hosted an IOPER meeting

in September 2012 in Rio de Janeiro, Brazil. Discussions focused on building IOPER and its working mechanisms, and identifying environmental priorities of common interest to member countries. Outcomes of the meeting included progressing the sharing of information on three of the priorities of common interest which included: environmental performance indicators, emergency response preparedness, and transparency and consultation processes and mechanisms in regulation of offshore petroleum.

5.7.3 ENVIRONMENTAL STUDIES RESEARCH FUND

The Board is a member of the Environmental Studies Research Fund (ESRF) management board, which includes representatives from government, regulators, industry and the public. Funding for the ESRF is provided by industry through levies on exploration and production properties on frontier lands. Its purpose is to finance environmental and social studies pertaining to the terms, conditions and manner best suited for petroleum exploration, development and production activities on frontier and offshore lands. The 12-member management board sets priorities for research studies, determines program budgets and facilitates the development of study proposals. The 2012 research priority areas included: oil spill preparedness, fate, and effects; and seismic. In 2013 the priority areas for the east coast are: hydrocarbon spills, and seismic. Approximately 200 research studies have been published to date.

5.7.4 PARTICIPATION IN DFO MARINE PROTECTED AREA PLANNING PROCESS

The Board continues to participate in the DFO Marine Protected Areas (MPAs) program. This includes:

- Participating in the Gully MPA Advisory Committee meetings.
- Participating in advisory committees for two proposed MPA Areas of Interest (AOI): the Laurentian Channel AOI and the St. Ann's Bank AOI. The boundary lines for these areas were discussed in 2012. The year 2013 will focus on finalizing boundaries, zoning and decisions on activity inclusion/exclusion.

At the request of DFO, the Board completed a Geological Overview and Resource Estimate of the St. Ann's Bank proposed MPA. A number of meetings have been held with DFO staff to discuss the hydrocarbon potential of this MPA and the Board's resource assessment methodology.

LEGAL / REGULATORY POLICY / RIGHTS MANAGEMENT

Left to Right:
Michael S. McPhee,
Christine Bonnell-Eisnor
and Nichole Bush

Not Pictured:
Colleen Ménard

SECTION 6 : RESOURCES AND RIGHTS

The Resources and Rights Group is involved with the management and conservation of petroleum resources, resource evaluation and petroleum rights issuance aspects of the Board's mandate. Over the past year, this group has undergone structural change in light of retirements of individuals from certain key positions in the organization which has resulted in certain staffing changes to enhance delivery of our regulatory mandate.

- Carl Makrides has been promoted to Director, Resources responsible for the resource management aspects of the Board's mandate;
- Michael McPhee has assumed the oversight of the rights management aspect of the Board's mandate. He now holds the job title of Secretary, General Counsel & Director, Regulatory Policy/Rights Management. Christine Bonnell-Eisnor, Colleen Ménard and Nichole Bush, now report to Mr. McPhee; and
- Steve Bigelow, formally Director, Resources and Rights will be retiring at the end of 2013. Mr. Bigelow currently retains his appointment as Chief Conservation Officer, and has taken on an Executive Advisor role assisting the organization with the transition of his previous Director level responsibilities to Carl Makrides and Mike McPhee.

6.1 RESOURCE MANAGEMENT AND CONSERVATION

Under the Accord Acts, the management and conservation of offshore petroleum resources is a key responsibility of the Board. Resource conservation means that petroleum must be produced in accordance with good oil field practices, having proper regard for the efficient recovery of the resource and the prevention of waste.

The Board's resource management approach is designed to hold operators accountable for resource conservation, and to enable the Board to develop an independent understanding of the resource. To accomplish this, Board staff review activity authorization applications from a data acquisition and resource conservation perspective, perform necessary studies to validate proposals and activities, and monitor operator activities for compliance with regulatory requirements.

THE BOARD'S RESOURCE MANAGEMENT APPROACH IS DESIGNED TO HOLD OPERATORS ACCOUNTABLE FOR RESOURCE CONSERVATION, AND TO ENABLE THE BOARD TO DEVELOP AN INDEPENDENT UNDERSTANDING OF THE RESOURCE.

Each application for authorization to conduct a geophysical or geotechnical program is reviewed by Board staff to confirm that there is no unnecessary duplication of data acquisition and that the program is in compliance with regulations. Each application for approval to drill a well includes, among other requirements, a geological prognosis and well evaluation program that is reviewed by Board staff to ensure that sufficient data is acquired to allow for a comprehensive evaluation of all zones. Board staff conducts technical evaluations of all geological, geophysical, petrophysical and reservoir engineering aspects of the program. The evaluation also ensures consistency of this plan with regulations.

Operators are required to submit a Resource Management Plan (RMP) to document their resource conservation policy and procedures. The RMP must be approved by the Board prior to commencing production. Based on the latest geological, geophysical, petrophysical and reservoir information available at the time of the authorization application, the RMP should fully describe how the field or pool will be produced over its life. Furthermore, it should provide a detailed evaluation plan to address the main uncertainties, including sensitivities and alternative scenarios. The RMP is valid for the life of a pool or field and should be modified as new information is acquired. Annual RMP updates are required to be submitted with the annual Production Report.

6.1.1 COMPLIANCE MONITORING AND ENFORCEMENT

The Board monitors exploration and exploitation activities and holds operators accountable for conservation of the resource and compliance with the regulations. This is accomplished through monitoring exploration activities, reservoir production and performance, and through regular communication with the operator.

Geophysical and geotechnical programs are monitored weekly by reviewing reports and updates from the operator to confirm they are being conducted in a manner that is consistent with the approved program. Upon completion, the program's data and final reports are reviewed, analyzed and archived by staff.

Drilling programs are continually monitored by reviewing daily reports and updates from the operator to ensure consistency with the approved program. All modifications are reviewed and approved if necessary. After the well is completed, the well results, data (i.e., well logs, cores, cuttings, fluids, well tests, etc.) and final reports are reviewed, analyzed and archived by staff.

Approved development projects are monitored to confirm that:

- The operator is optimizing recovery from a field in accordance with good oilfield practices;
- The Resource Management Plan is current and put into effect;
- Flow and volume measurements are conducted in accordance with an approved flow system; and

- Flow calculation procedures and flow allocation procedures and all other conditions associated with an approved development plan application are followed.

6.1.2 SPECIFIC HIGHLIGHTS FROM THE YEAR

In addition to daily production and measurement monitoring of the Sable Offshore Energy Project (SOEP), Board staff reviewed the operator's annual Resource Management Plan update and annual Production Report.

In preparation for the start-up of Encana's Deep Panuke Project, Board staff reviewed its resource management, metering and measurement submissions. The required annual update to Deep Panuke's Resource Management Plan was also submitted and reviewed. In January 2013, Board staff audited the management and resource conservation aspects of Encana's Management System against relevant sections of the Nova Scotia Offshore Petroleum Drilling and Production Regulations. This was done as part of a Readiness for Operations Audit. This audit included elements such as the Resource Management Plan; evaluation of wells, pools and fields; metering and measurements; resource conservation; and regulatory compliance.

6.2 OFFSHORE PRODUCTION

6.2.1 SABLE OFFSHORE ENERGY PROJECT

Natural gas production began in December 1999. Tier I fields Thebaud, Venture and North Triumph provided the initial production, followed by Tier II fields Alma and South Venture. Total yearly production by field is shown in Figure 6.

The average daily gas rate each fiscal year is shown graphically by field in Figure 7 and the values of average yearly rates are listed in Figure 8. By the end of this fiscal year, total cumulative production was 52.8 E9m3 (billion cubic metres) or 1.86 Tcf (trillion cubic feet). Each field's contribution to this total production is shown in Figure 9.

6.3 RESOURCE ASSESSMENTS

Board staff continues to assess the hydrocarbon potential of the offshore sedimentary basins. These assessments are required to determine the volume of oil and gas discovered to date, as well as estimate the undiscovered potential resource volumes. The results of these assessments are used to inform decisions pertaining to the issuance of petroleum rights by the Board. Industry uses this information to better understand a basin's exploration potential and prospectivity. Governments use the information to evaluate potential supplies, possible resource revenue and to inform policy makers.

6.4 RIGHTS MANAGEMENT

6.4.1 GENERAL OVERVIEW

The rights issuance, or licensing policy, is governed by Part II of the Accord Acts, which is based on the Canadian Petroleum Resources Act model. Annually, the Board's anticipated decisions respecting the making of a call for bids and the terms and conditions of the resulting licences are sent to the federal and provincial governments in the form of the Board's annual Strategic Plan for interests, exploration and development.

FIGURE 6:
Total Gas Production by Field Each Fiscal Year

FIGURE 7:
Average Daily Gas Rate per Field by Fiscal Year

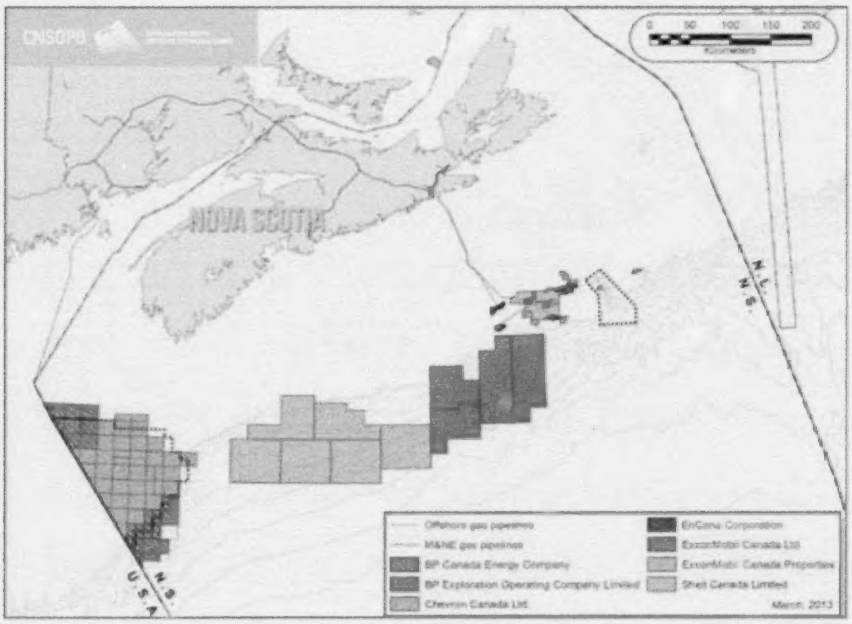
FISCAL YEAR

FIGURE 8: Total Average Daily Gas Rate Each Fiscal Year

FISCAL YEAR	(E6m³/D)	(MMscf/D)
1999-00	4.7	167
2000-01	12.0	425
2001-02	15.2	536
2002-03	14.4	509
2003-04	12.8	452
2004-05	11.3	400
2005-06	11.5	406
2006-07	10.3	362
2007-08	12.9	456
2008-09	12.2	431
2009-10	9.3	329
2010-11	8.7	308
2011-12	7.5	264
2012-13	5.0	177

FIGURE 9: Field Contributions to Total Production

FIGURE 10: Active Licences Offshore Nova Scotia as of March 31, 2013



6.4.2 PUBLIC REGISTRY OF INSTRUMENTS AND INTERESTS

The Board maintains a public registry of offshore interests and instruments, as required by the Accord Acts. This is the official record of rights holders, and any transfer of rights or change of ownership must be registered. The public may access the Registry in person at the Board's Halifax office, or online on the Board's website.

6.4.3 INTERESTS

Figure 10 shows the active licences offshore Nova Scotia as of March 31, 2013.

6.4.3.1 CALL FOR BIDS

At any time during the year, any person can nominate offshore land parcels for potential exploration. The deadline to nominate lands for consideration in the April Call for Bids is December 1. Nominated parcels are reviewed after December 1 to determine whether any will be included in the next Call for Bids. The Board can also post lands for inclusion in a Call for Bids.

There are presently three areas where nominations will not be accepted: the Georges Bank Prohibition Zone, the Sable Gully Marine Protected Area and the Donkin Block Prohibited Area.

CALL FOR BIDS NS12-1

Call for Bids NS12-1 was announced on April 30, 2012 and closed on November 7, 2012. This Call consisted of eleven (11) offshore parcels, six (6) of which were industry nominated. Nine (9) of the parcels were located in deepwater.

The parcels were located in both the Sable Island area and southwestern part of Nova Scotia's offshore. Board staff prepared an in-depth regional and subregional geological and geophysical analysis of each parcel. This information was made available through the Board's website.

Shell Canada Limited was the successful bidder for four (4) parcels (Parcels 1 to 4) resulting in $31,853,248.00 in work expenditure bids. BP Exploration Operating Company Limited was the successful bidder for four (4) parcels resulting in $1,049,999,999.00 in work expenditure bids. No bids were received on three (3) of the parcels.

FIGURE 11:
Active Exploration Licences (ELs)

EL NO.	EFFECTIVE DATE	INTEREST REPRESENTATIVE	WORK EXPENDITURE BID (CAD)
2423	01-Mar-2012	Shell Canada Limited	$1,756,450.00
2424	01-Mar-2012	Shell Canada Limited	$303,078,225.00
2425	01-Mar-2012	Shell Canada Limited	$235,025,888.00
2426	01-Mar-2012	Shell Canada Limited	$430,139,437.00
2427	15-Jan-2013	Shell Canada Limited	$2,355,664.00
2428	15-Jan-2013	Shell Canada Limited	$1,644,336.00
2429	15-Jan-2013	Shell Canada Limited	$25,878,695.00
2430	15-Jan-2013	Shell Canada Limited	$1,974,553.00
2431	15-Jan-2013	BP Exploration Operating Company Limited	$5,281,593.00
2432	15-Jan-2013	BP Exploration Operating Company Limited	$322,413,027.00
2433	15-Jan-2013	BP Exploration Operating Company Limited	$637,977,927.00
2434	15-Jan-2013	BP Exploration Operating Company Limited	$84,327,452.00

6.4.3.2 EXPLORATION LICENCES

At the end of fiscal 2012-13, there were twelve (12) active exploration licences (ELs) for offshore Nova Scotia, with total original work expenditure bids of approximately $2,051,853,227.00. The twelve (12) ELs cover an area of 3,531,112 hectares. Figure 11 lists the active ELs in offshore Nova Scotia.

The term of an EL is nine (9) years, consisting of two (2) consecutive periods referred to as Period 1 and Period 2. In order for an EL to enter Period 2 a validation well must be drilled or commenced ('spudded') in Period 1.

The Board cancelled EL 2419 on July 5, 2012, and EL 2420 on March 5, 2013 because the interest owners failed to post the required Work Deposits in accordance with the terms and conditions of the ELs. Additionally, EL 2417 and 2418 were surrendered by the interest owner on December 31, 2012. For all four (4) of these ELs, the $50,000 Licence Deposits were forfeited to the Receiver General for Canada.

6.4.3.3 SIGNIFICANT DISCOVERY LICENCES

A Significant Discovery Licence (SDL) is an intermediate interest designed to maintain an explorer's rights during the period between the first discovery and eventual production. The term of such a licence continues so long as the underlying Significant Discovery Area remains valid.

There are presently thirty-three (33) SDLs offshore Nova Scotia, covering an area of 76,680 hectares. The Board has nearly completed a technical assessment to update the estimate of in-place and recoverable hydrocarbons associated with these SDLs. The CNSOPB intends to publish the results of this assessment by Q4 2013. The breakdown of interest representatives for these SDLs is noted in Figure 12.

FIGURE 12:
Active Significant Discovery Licences (SDLs)

INTEREST REPRESENTATIVE	NUMBER OF SDLs
ExxonMobil Canada Properties	22
ExxonMobil Canada Ltd.	3
Shell Canada Limited	6
Encana Corporation	1
BP Canada Energy Company	1

RESOURCES

Left to Right:
Kris Kendell, Brent Smith, Brian Altheim, Mark Deptuck, Carl Makrides, Dave Brown and S.F. (Steve) Bigelow

6.4.3.4 PRODUCTION LICENCES

A Production Licence (PL) is issued for any portion of the offshore area showing a commercial discovery. Such licences have a term of twenty-five (25) years, but may be extended if commercial production is continuing or is likely to recommence. There are eleven (11) PLs in offshore Nova Scotia with a total area of 39,441 hectares.

PL 2901 and 2902 were issued for the Cohasset-Panuke offshore oil project. Production from Cohasset-Panuke ended in 1999. PL 2909, 2910, and 2911 were issued to Encana Corporation for the Deep Panuke Project.

PL 2903, 2904, 2905, 2906, 2907 and 2908 are registered to ExxonMobil Canada Ltd. as the interest representative for the Sable Offshore Energy Project.

6.4.4 FOURTH INTERNATIONAL UPSTREAM FORUM

The Board participated in the 4th International Upstream Forum (Forum), which was hosted by the UK Department of Energy and Climate Change on August 23rd and 24th, 2012 in Aberdeen, Scotland, UK. This forum brought together representatives from a number of international regulators and government departments to discuss matters of common interest related to oil and gas resource management. Forums such as this assist the Board in formulating policy and facilitate the development of regulatory best practices. The 2012 forum was attended by 23 policy makers and regulators from seven countries and focused on three areas: 1) Offshore Liabilities and Insurance; 2) Enhanced Oil Recovery & Evolving Reservoir Management Technologies; and 3) Resource Assessment.

6.5 OTHER GEOSCIENCE INITIATIVES

The Board continues its strong support for both internal and external geoscience research focusing on better understanding the petroleum geology of the Scotian Basin and other areas under its jurisdiction. Board's geoscientists conduct ongoing technical studies and evaluations of the offshore basins, stratigraphic intervals and reservoirs. These initiatives provide the knowledge framework for resource and reserve assessments, potential exploration and production drilling, and are used to identify areas that could be considered for future Calls for Bids.

Board geoscientists were key technical contributors to the Province of Nova Scotia's Play Fairway Analysis (PFA) released in 2011. The results of the PFA provide a modern understanding of the Scotian Basin's evolution and petroleum potential, with new play concepts developed and quantification of its petroleum potential and prospectivity. Board expertise and contributions to the PFA on salt tectonism, deep water sedimentation, reservoir quality and distribution and basin tectonic evolution were instrumental in the success of this project.

The Board's geoscientists are currently involved with the Province of Nova Scotia in determining future research priorities for planned new geoscience initiatives that should generate additional knowledge and interpretations that will further enhance our understanding of the region's petroleum prospectivity. The Board recognizes the importance of staff participation in local, national and international geoscience societies as members, officers and contributors. In these positions, staff members assist with organizational growth, membership, professional and technical development, organizing of conferences, peer review of technical papers and public outreach programs. In addition to contributing several papers, Board staff took senior leadership roles in coordinating, compiling and editing the recent December 2012 edition of the Canadian Journal of Earth Sciences devoted entirely to geoscience research on the Scotian Basin.

The Board values the opportunities that technical conferences and meetings offer as a means to disseminate knowledge and information generated by its staff, and contributions and collaborations with fellow provincial and federal geoscientists. The bi-annual Conjugate Margins Conferences

have had strong Board support since their inception in Halifax in 2008 (the Board took a leadership role in its creation), and is gaining stature in industry and academic circles. At the third Central and North Atlantic Conjugate Margins Conference in Dublin, Ireland in August 2012, Board geoscientists were active in organizing and planning the event and gave several technical presentations. The next conferences will be held in St. John's, Newfoundland and Labrador (2014) and Recife, Brazil (2016) and the Board will continue its participation and support of this increasingly important gathering. In addition to this event, Board geoscientists also delivered the results of their ongoing research studies at other technical conferences in Canada, United States and United Kingdom. Some of this research has been published in international peer-reviewed scientific journals and books, and future contributions are planned.

Responding to information and technical requests and inquiries from external organizations is a key responsibility of Board technical staff. Assistance on planning research programs and technical studies, data searches and related support is continuously provided to industry, local and international geoscience consultancy firms, universities and research organizations. Several staff members support geoscience education at local universities through course lectures, labs and field trips, and provide mentorship and guidance to graduate students.

SECTION 7 : INDUSTRIAL BENEFITS

7.1 LEGISLATION

The 1986 Accord Agreement outlined the objective that Nova Scotians and Canadians secure optimum benefits from petroleum resources activities in the Nova Scotia offshore area. This objective was solidified in the Accord Acts under Section 45, which defines the method of accomplishing these benefits. Specifically, the Accord Acts require that a Canada-Nova Scotia Benefits Plan is approved by the Board before an operator receives approval or authorization for any planned work or activity in the Nova Scotia offshore area. To ensure optimum benefits, the statute requires that the Benefits Plan contain provisions that:

- The operator will establish an office within the Province of Nova Scotia, where an appropriate level of decision making authority will take place;
- Full and fair opportunity is afforded to Nova Scotians and other Canadians in respect of the competitive process surrounding the supply of goods and services required for the activity;
- First consideration is given to those goods and services that are manufactured within or provided from Nova Scotia, where those goods and services are commercially competitive;
- First consideration is also provided to Nova Scotia residents in respect of employment and training opportunities that arise from the work or activity;
- The operator will develop and carry out a program aimed at the promotion of Education & Training and Research & Development (E&T/R&D) in petroleum resources activities in the Nova Scotia offshore area; and,
- The operator will ensure that disadvantaged groups and individuals have access to training and employment opportunities, and the opportunity to participate in the supply of goods and services required for the work or activity.

Each plan is reviewed by Board staff to ensure the principles outlined in the Accord Acts are reflected and understood by all parties. This is an important aspect of the Board's ongoing monitoring of benefits plans and procurement activities.

During the reporting period, the Board continuously monitored the activities under the Benefits Plans for the two offshore development projects: Sable Offshore Energy Project and the Deep Panuke Offshore Gas Development. In addition, procurement activities associated with Shell's upcoming Shelburne 3D Seismic Program were also diligently monitored.

7.2 DEVELOPMENT PROJECTS

7.2.1 SABLE OFFSHORE ENERGY PROJECT

ExxonMobil, the operator of the Sable Offshore Energy Project (SOEP), files an annual Benefits Report with the Board. As stated in the report submitted to the Board for the period ending December 31, 2012, SOEP has spent $2.494 billion in Nova Scotia to date; $1.121 billion has been spent in the rest of Canada, with overall Canadian spending totalling $3.615 billion. Cumulatively, Nova Scotian person hours amounted to $21.84 million, while the rest of Canada totalled $3.44 million person hours.

INDUSTRIAL BENEFITS

Left to Right:
Kim Nauss and
Charity Harrington

2008-2012 SOEP R&D PLAN

In 2008, the Board approved a five-year R&D Plan submitted by SOEP for the 2008-12 period. Within this approved plan, SOEP committed to spending a minimum of $3 million over the five-year period on eligible R&D initiatives, with no less than $300,000 being spent in any individual year. A sampling of the approved R&D initiatives undertaken during 2012 is included within the SOEP Benefits Report, which can be found on the Board website.

2013-2017 SOEP R&D PLAN

The Board approved SOEP's R&D Plan for the 2013-17 period in 2011. Within this approved plan SOEP has committed to spend a minimum of $3 million over the five-year period on eligible R&D initiatives, with no less than $375,000 to be spent in any individual year. A key initiative approved under this plan is the funding of a Centre of Excellence for Geoscience R&D at Dalhousie University. This initiative involves a cash grant contribution and provides Dalhousie researchers and their collaborators/co-authors access to the Sable Mega-Merge dataset.

7.2.2 DEEP PANUKE OFFSHORE GAS DEVELOPMENT

Encana, the operator of the Deep Panuke Offshore Gas Development, is required to file semi-annual benefits reports with the Board. According to the report submitted to the Board for the period ending December 31, 2012, cumulative Nova Scotian person hours amounted to $3,63 million, while the rest of Canada totalled $,55 million.

DEEP PANUKE R&D FUND

Encana has committed to spending a minimum of 0.5% of the gross revenues from Deep Panuke over the life of the project on eligible E&T and R&D initiatives. During the development phase, prior to production, the funds available each year for E&T/R&D are based on 0.5% of allowable capital costs in the previous calendar year.

In November 2012 Encana announced its fourth Call for Proposals, in the theme of Environment. Past themes were Engineering (2009), Safety & Risk (2010) and Geoscience (2011).

In addition to the R&D stemming from these Calls for Proposals, the Board has approved a number of other E&T/R&D initiatives undertaken by Encana. A sampling of the approved E&T/R&D initiatives undertaken during 2012 is included within the Deep Panuke Benefits Report, which can be found on the Board website.

BENEFITS REVIEW COMMITTEE

In an effort to provide regular consultation with both the federal and provincial governments on industrial Benefits matters, the Board chairs a Benefits Review Committee (BRC), comprised of representatives from the Nova Scotia Department of Energy and Natural Resources Canada, as well as representatives from other federal and provincial agencies or departments as appropriate.

SECTION 8 : INFORMATION SERVICES

The Information Services Department is responsible for the management of the Board's geo-scientific subsurface materials, corporate records and documents, and its computer systems and communication tools.

8.1 GEOSCIENCE RESEARCH CENTRE (GRC)

The Board's Geoscience Research Centre and Data Management Centre (DMC) are located in Dartmouth, Nova Scotia. The public can access the GRC and support from its staff free of charge from Monday to Friday, 8:00 a.m. to 4:00 p.m.

The GRC facility archives all final well history, geological and well site survey reports. It is also used to archive and make available for study all subsurface samples, including cores, cuttings, fluids and related materials from petroleum exploration and development wells drilled in the Nova Scotia offshore area.

Data remains confidential for a period of time as specified in the Accord Acts. Once the confidential period has expired, information may be disclosed to the public.

Users of the GRC include industry (local, national and international), government and academic organizations and drilling/service organizations.

8.2 DATA MANAGEMENT CENTRE (DMC)

The Board's DMC is the first data centre in North America to offer, free of charge, digital offshore petroleum data via its website. The DMC is currently managing and distributing the following petroleum data: well data, seismic image files and production data. Additionally, the DMC includes prevention of data loss, reduction in data storage costs and facilitation of scientific research by the regulatory Boards, industry, governments and universities. Approximately 20,000 records were downloaded from the DMC this past year.

As of March 2013, complete data sets for 207 wells offshore Nova Scotia and 24 data sets from wells in other jurisdictions are available via the Board's DMC website.

Complete data sets for 486 seismic programs have also been loaded into the DMC. Along with PDF images available in the DMC, two seismic programs (8620-N011-001E and NS24-N001-001E) with full SEGY (standard file format for seismic data), SEGD (standard file format for seismic field data) and gathers are available on the DMC File Transfer (FTP) site.

The DMC has 460 registered users, of which 33% are industry (local, national and international), 46%

INFORMATION SERVICES

Left to Right:
Nancy White, Mary Noël, Mary Jean Verrall, Anita Nicoll, Debra Wheeler, Troy MacDonald, Nancy Hynes, Colleen Garber, John Martin, Kenda Landry, Debbie O'Brien and Jason Butts

are from government/academic organizations, and 21% are from a drilling/service organization. Many clients use the DMC website to perform research prior to visiting the GRC.

In this fiscal year, the data management centre was upgraded to improve the way geoscience data is disseminated. The new system allows for improved scalability and the interface is more intuitive for users to navigate and find the information they require.

8.3 CORPORATE RECORDS MANAGEMENT

The Board's new electronic document and records management system (Documentum) was installed and the appropriate staff trained. The Board's records classification and retention schedule were loaded into the new system and testing commenced. This new system will standardize how the Board's information is maintained resulting in improved compliance, searchability of content, and processing information requests.

8.4 WEBSITE

The Board's new website was implemented with improved functionality for users. The site has proven to be a valuable communication tool to disseminate information with approximately 3,500 visits per month.

SECTION 9 : REGULATORY MODERNIZATION

The Board is committed to continuous improvement of the regulatory framework that governs offshore oil and gas activities. Board staff members continue to assist the provincial and federal governments as they finalize proposed amendments to the Accord Acts regarding offshore occupational health and safety (OHS). Assistance was provided throughout the year in further revising the proposed legislative amendments.

The Board also continues to support the federal, provincial and territorial governments' initiative to update and modernize other aspects of legislation, and the existing suite of petroleum regulations under the Accord Acts. Modernizing legislation and regulations will support the offshore oil and gas industry's continued growth and contribution to Nova Scotia's and Canada's economy and competitiveness, while maintaining the highest standards for safety, environmental protection and management of resources.

At the same time, the Board remains active in developing and modernizing a number of guidelines and other regulatory documents to assist operators in interpreting and achieving regulatory compliance.

Over the past year, the Board revised its Incident Reporting and Investigation Guidelines, and several Memoranda of Understanding (MOU) with outside parties were revised or developed to ensure that regulatory responsibilities are appropriately understood, delineated and coordinated. These include MOUs with the Diving Certification Board of Canada (revised; addresses issuance of diving certificates); Transport Canada, Marine Safety and Security (revised; addresses marine safety); Natural Resources Canada, Nova Scotia Department of Energy and Nova Scotia Department of Labour and Advanced Education (under revision; addressing administration of OSH once Accord Act amendments come into force); and the Canadian Coast Guard (under development; to address response to oil spills).

SECTION 10 - ADMINISTRATION

OUR EMPLOYEES

The Board employs many technical industry specialists who regulate a highly complex industry. At the end of the fiscal year the Board had a staff of 39. Thirty-six of these employees have degrees or diplomas, six are professional engineers and eight have advanced education (Masters Degree, Honours, PhD).

Retirements of individuals from certain key positions in the organization has resulted in certain staffing changes, and in some cases has allowed the Board to reflect on organizational structure and implement other appropriate changes to enhance delivery of our regulatory mandate. These changes include:

- Keith Landra has been appointed as Chief Safety Officer, replacing Dave Scratch who retired at the end of March;
- Carl Makrides has been promoted to Director, Resources responsible for the resource management aspects of the Board's mandate;
- Michael McPhee has assumed the oversight of the rights management aspect of the Board's mandate. He now holds the job title of Secretary, General Counsel & Director, Regulatory Policy/Rights Management. Christine Bonnell-Eisnor, Colleen Ménard and Nichole Bush, now report to Mr. McPhee; and
- Steve Bigelow, formally Director, Resources and Rights will be retiring at the end of 2013. Mr. Bigelow currently retains his appointment as Chief Conservation Officer, and has taken on an Executive Advisor role assisting the organization with the transition of his previous Director level responsibilities to Carl Makrides and Mike McPhee.

EMPLOYEE ACHIEVEMENTS AND MILESTONES

Congratulations to the following employees on their accomplishments:

- Gerald Sheehan and Joachim Pektzilikoglou achieved their Canadian Registered Safety Professional designation
- Tara Jennings received her Certified Human Resources Professional (CHRP) Designation
- David E. Brown was a member of the international geoscience team that created, prepared and edited a new book "Conjugate Divergent Margins" recently published by the Geological Society of London (Special Publication 369). This is an important contribution to understanding the evolution of sedimentary basins of the North and South Atlantic realm and their petroleum systems. Mr. Brown was also a member of the organizing committee for the Dublin 2012 Conjugate Margins Conference
- Mark Deptuck was an Associate Editor for a special issue of the Canadian Journal of Earth Sciences entitled "Mesozoic-Cenozoic Geology of the Scotian Basin". The special issue was published in December 2012 and contains 11 peer-reviewed papers

PUBLIC RELATIONS & ADMINISTRATION

Left to Right:
Tanya Taylor White, Tara Jennings, Theresa MacLeod, Shelley Phinney and Karen Simpson

Not Pictured:
Patricia Whittle

In this special issue, Mr. Deptuck was the lead author of a paper describing the widespread geological effects of an asteroid or comet impact that struck the southwestern Scotian Shelf ~51 million years ago.

- Kris Kendell authored one of the 11 peer-reviewed papers in the special issue of the Canadian Journal of Earth Sciences. His paper focused on the complex history of salt tectonics in the Sable Subbasin.
- Robert Normore, Gerald Sheehan, Carl Makrides and Christine Bonnell-Eisnor completed their Applied Leadership Program through Bluteau and DeVenney.

NEW STAFF MEMBERS

- Nichole Bush joined the Legal, Regulatory Policy and Right Management group as Analyst, Regulatory Policy/Rights Management.
- Dylan Scratch joined the OPS/HSE Team as Advisor, Field Operations.
- Kenda Landry joined the Information Service Team as Records Management/Administrative Assistant.

RETIREMENTS

Best wishes to Dave Scratch, Chief Safety Officer, who retired from the Board this year. Dave has been a member of the Board from its inception in 1990. Dave played an integral role in ensuring the best in worker safety and safe offshore operations throughout his career, culminating in his appointment as Chief Safety Officer in 2009.

SECTION 11 :

JOINT OCCUPATIONAL HEALTH AND SAFETY COMMITTEE 2012-13

The JOHSC is committed to playing a vital role in workplace health and safety by providing management and its employees with advice on health and safety issues. The Board understands and values that healthy employees are productive employees. To that end, the Board is committed to enhancing overall wellness and providing a safe and healthy workplace.

JOHSC activities in 2012-13 included various health and wellness initiatives, North American Occupational Health & Safety week events, workplace safety inspections and reviews of the Internal Workplace Occupational Health and Safety Program and Safe Work Procedures.

Major renovations to the building that houses the Board's main office began in 2012. In order to mitigate any potential negative impacts to staff and property, the JOHSC will proactively engage staff on topics such as hazard identification and accident/incident reporting.

SECTION 12: BOARD MEMBERS

The Board consists of up to five members and two alternate members who are appointed for fixed terms of office. The Chair (currently vacant) is jointly appointed by both the Government of Canada and the Government of Nova Scotia. Each government appoints two Board members, and each government may also appoint one alternate member.

Left to Right:
Brian Lewis, The Honourable Rodney J. MacDonald, Tim Brownlow and Paul F. Taylor

Not Pictured:
Douglas Gregory

TIM BROWNLOW, BOARD MEMBER (PROVINCIAL)

Tim Brownlow is a government relations and business development executive with over thirty years of experience in the offshore oil and gas sector. He is currently Director of Government Affairs and Business Development with Irving Shipbuilding Inc., and worked with Kiewit Energy Canada Corporation as Business Development Manager in Calgary, Alberta. He began his offshore career in the oil and natural gas industry in 1978 working for the following companies: ODECO Drilling, Magcobar, and Rowan Companies Inc., both domestically and internationally.

Mr. Brownlow then joined the Nova Scotia Government in 1990, holding positions as Petroleum Operations Officer, Director of Benefits & Training and Chief Advisor for the Department of Natural Resources and the Offshore Energy Office. During Mr. Brownlow's offshore and government days he was fortunate to have been directly involved from the discovery phase through to the production phase for both the Sable Offshore Energy Project and the Cohasset Panuke Project. He has served on numerous boards and committees, including: the Premier's Energy Advisory Council, Chairman of the Offshore/Onshore Technologies Association of Nova Scotia, the Atlantic Energy Roundtable, seconded to the Grampian Regional Council (Aberdeen, Scotland), Associate Member for the World Energy Cities Council, and former Co-Chair for the Federal/Provincial Regulatory Review Committee.

Mr. Brownlow is currently the Acting Chair of the Board, a member of the Board's Health, Safety & Environment Committee and the Chair of the Board's HR Committee.

BRIAN LEWIS, BOARD MEMBER (FEDERAL)

Brian Lewis graduated from Dalhousie University with a Bachelor of Commerce in 1982. He started work in the offshore in 1984 working for Rowan Companies. Initially he worked in Offshore Nova Scotia and he also spent a year with Rowan in the Gulf of Mexico.

The final three years working with Rowan were on the Cohasset Panuke Project. He served as Co-Chair of the Joint Occupational Health and Safety Committee during his final years in the offshore. In 1993 he started working for CFM, a division of J D Irving, in Dartmouth and was involved in supplying industrial products and services to all industries including the offshore. In 1998 CFM was awarded the hose supply contract for the Sable Offshore Project and maintained this contract without incident for eight years. Having worked in the offshore, Mr. Lewis has an understanding of the types of products and services needed to ensure that reliability and safety are never compromised. He spent 20 months as a Production Supervisor at the Woodside Shipyard in Dartmouth working on the refit for the Chemul offshore support vessel. He is now working with The Guildfords Group of Companies as a Project Manager and most recently completed a 20 month project in Labrador City. Mr. Lewis resides in Stellarton with his wife Christine and their two sons John and Tyler. He has always been active as a volunteer with minor hockey and baseball and served five years on the G. R. Saunders School Advisory Council.

Mr. Lewis is a member of the Board's Audit Committee and the Board's Health, Safety & Environment Committee.

HONOURABLE RODNEY J. MACDONALD, E.C.N.S, BOARD MEMBER (FEDERAL)

The Honourable Rodney MacDonald was sworn in as Premier of Nova Scotia from February 2006 to June 2009. During this time he put in place two major agreements for Nova Scotia's offshore: The Crown Share – a $870 million agreement between the Government of Canada and Nova Scotia settling a decades long dispute; and the Deep Panuke Agreement – Nova Scotia's second major project for Nova Scotia's offshore. Mr. MacDonald was first elected to the Nova Scotia House of Assembly for the constituency of Inverness in July 1999, re-elected in 2003, 2006, and 2009. Portfolios held include: President of Executive Council; Minister of Intergovernmental Affairs; Minister of Tourism, Culture, and Heritage; Minister of Health Promotion; Minister of Immigration and Minister responsible for Nova Scotia Liquor Corporation, Youth Secretariat, Heritage Property Act. Mr. MacDonald received his Bachelor of Science in Physical Education from Saint Francis Xavier University in 1994. He was employed by the Strait Regional School Board 1994-1999. Mr. MacDonald is a musician (violinist/dancer) and is a two time East Coast Music Award Nominee. Presently, Mr. MacDonald is CEO of the Gaelic College located in St. Ann's, Cape Breton and is President and Owner of RMD Development Incorporated, a Consulting and Business Development Company.

Mr. MacDonald is a member of the Board's Audit Committee and the Board's HR Committee.

DOUG GREGORY, ALTERNATE BOARD MEMBER (FEDERAL)

Doug Gregory's career with Shell Canada and Royal Dutch Shell spanned three decades. He began as an exploration geophysicist in Canada and would later work with Petroleum Development Oman, a joint venture company working in Muscat, Sultanate of Oman. After returning to Calgary and focusing on exploration in Western Canada, he went on to hold various management positions including: Exploration Research Manager, Manager Geophysical Operations, and Manager, Safety and Environment providing technical support to Shell Canada's Upstream Operations. In 1999, Mr. Gregory moved to Halifax as Shell's Manager East Coast Operations, focusing on deepwater seismic exploration over the Nova Scotian slope (deep water) acreage. He retired as East Coast Manager in 2003.

He has been active in various organizations including: Co-chair, Petroleum Fisheries Liaison Group Canadian Association of Petroleum Producers (CAPP) (2001-2003); Chair, Atlantic Canada Committee – CAPP (2001-2003); Director, Greater Halifax Partnership representing the Energy sector (2002-2004); and, President, Rotary Club of Halifax Northwest (2007-2008). He holds an M.Sc. in Microwave Physics (1970) from the University of Waterloo, Ontario and a B.Sc. Math & Physics (1969) from Sir George Williams University, Montreal. Mr. Gregory resides in Halifax, Nova Scotia.

Mr. Gregory is the Chair of the Board's HSE Committee.

PAUL F. TAYLOR, BOARD MEMBER (PROVINCIAL)

Paul Taylor retired from the Government of Nova Scotia after a 27 year career. A native of Nova Scotia, he spent several years as an exploration geologist in Western Canada before returning to join the Province in 1982. He held positions as Senior Policy Analyst with the Priorities and Planning Secretariat, Director of Energy Transportation and Utilization with the N.S. Petroleum Directorate and Executive Director of Policy with the Department of Energy, during which time he was responsible for development of the Province's new Energy Strategy. His last five years with the Province were spent as the Deputy Minister of Economic Development. He has served in various capacities on the Boards of Nova Scotia Business Inc, InNOVAcorp, and the Greater Halifax Partnership, Chair of Deputy Ministers Forum on Sustainable Prosperity and Vice Commodore of the Armdale Yacht Club. He holds an Honours Degree in Geology from Dalhousie University and a Masters of Business Administration from the University of British Columbia. Mr. Taylor resides in Halifax, Nova Scotia.

Mr. Taylor is Chair of the Board's Audit Committee.

SECTION 13: FINANCIAL STATEMENTS

Please go to **http://www.cnsopb.ns.ca/about-us/annual-report** for the 2012-2013 Audited Financial Statements prepared by Levy Casey Carter MacLean.

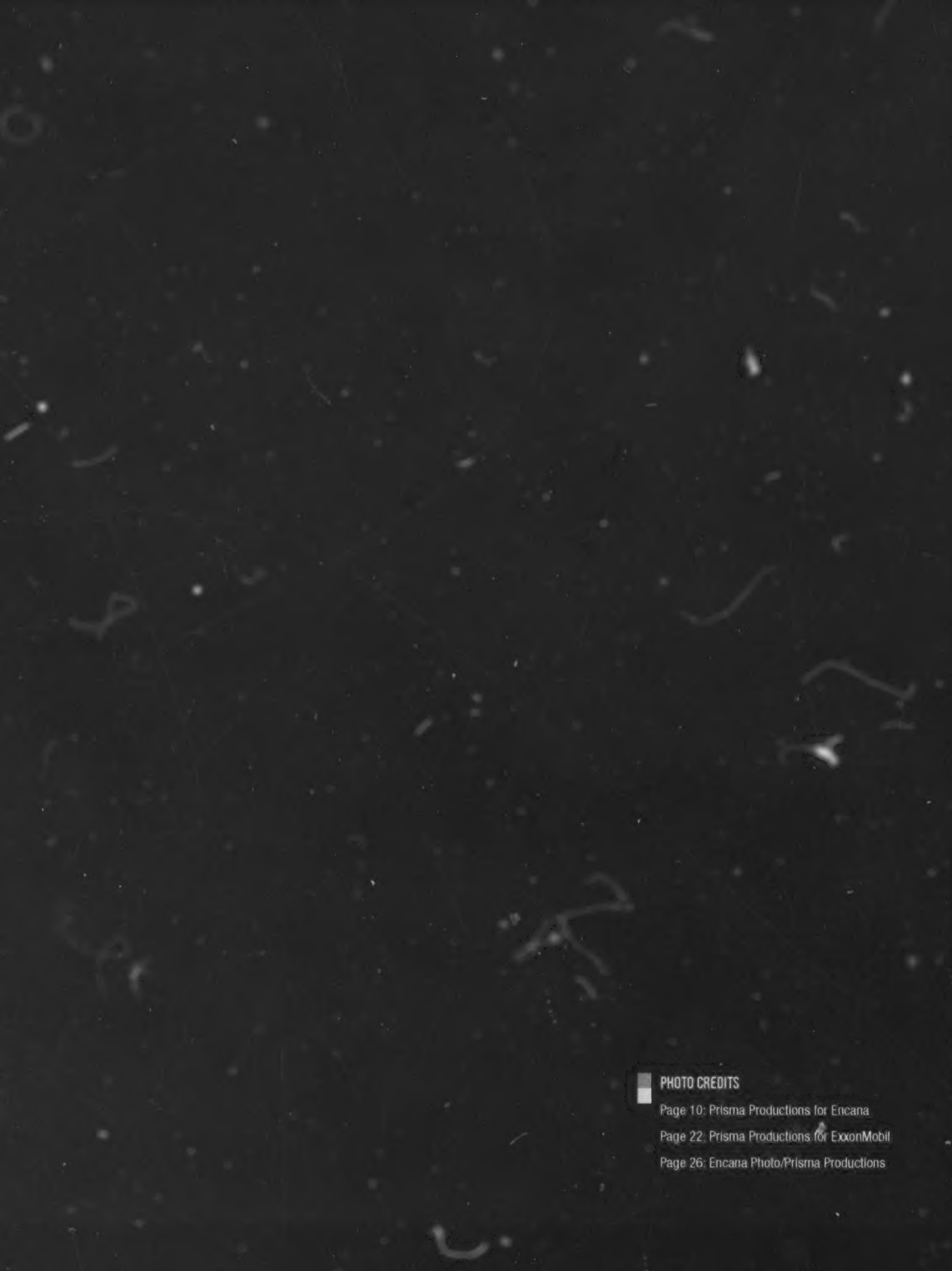


PHOTO CREDITS

Page 10: Prisma Productions for Encana

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Page 26: Encana Photo/Prisma Productions